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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/091,435

03/06/2002

Randy S. Uehran

DAKTRONICS

7679

7590

10/28/2003

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EXAMINER

KANG, DONGHEE

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

19/091,435

Applicant(s)

UEHRAN, RANDY S.

Examiner

Donghee Kang

Art Unit

2811

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment

1. Applicant's Amendment and Response to Paper No.4 have been entered and made of Record. Claim 1 is cancelled and new claims 2-6 are added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **2-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitamura et al. (US 5,614,735) in view of Sano et al. (US 6,097,084).

Kitamura et al. teach an extended length light emitting diode, comprising (Fig.5):

An LED die (1) having electrical connection leads (12) connected thereto and extending therefrom; a molded body (11) of electrical insulating material encompassing the LED die and a portion of each of the LED die from the environment and insulating and supporting each of the electrical connection leads, said molded body having a length and a cylindrical shape terminating in an upper domed portion through which light emitted from the LED die emanates for viewing; a molded extended length body region (11a) formed of electrical insulating material and being integral to and formed in one unitary mass with the molded body and making longer the length of the molded body, the molded extended length body region encompassing an additional portion of each of the electrical connection leads and thereby further insulating and supporting each of

the electrical connection leads, the molded extended length body region having a cylindrical shape matching the cylindrical shape of the molded body and a base which is planar in its entirety.

Kitamura et al. do not explicitly teach the extended length of the light emitting diode insert into a printed circuit board. Sano et al. teach in Fig.5b the extended light emitting diode is inserted into the printed circuit board (4) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the light emitting diode into the printed circuit board in order to provide an operation signal to the light emitting diode.

4. Claims **4-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitori (JP 5-90643) in view of Sano et al. (US 6,097,084).

Re claim 4, Nitori teaches an extended length light emitting diode comprising (Fig.1):

an LED die (1) having electrical connection leads (3 & 4) connected thereto and extending therefrom; a molded body (8) of electrical insulating material encompassing the LED die and a portion of each of the electrical connection leads and thereby protecting the LED die from the environment and insulating and supporting each of the electrical connection leads, said molded body having a base to an upper domed portion through which light emitted from the LED die emanates for viewing; a molded body

extension (9) formed of electrical insulating material, the molded body extension being separate from the molded body and having a length bounded by a lower surface which is planar in its entirety and an upper surface, the molded body extension having a cylindrical shape between the entirety planar lower surface and the upper surface which matches the cylindrical shape of the molded body, and the molded body extension further having individual holes for each of the electrical connection leads extending therethrough from the upper surface to the entirely planar lower surface, the molded body extension being fitted to the molded body with the individual holes receiving the electrical connection leads and with the upper surface abutting and being permanently affixed to the base of the molded body, the molded body extension thereby making longer the length of the molded body.

Nitori does not explicitly teach the extended length of the light emitting diode insert into a printed circuit board. Sano et al. teach in Fig.5b the extended light emitting diode is inserted into the printed circuit board (4) with the entirely planar base bearing directly against and lying flush with the upper surface of the printed circuit board without the need for an interceding spacer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the light emitting diode into the printed circuit board in order to provide an operation signal to the light emitting diode.

Re claim 5, Nitori teaches the base of the molded body and the upper surface of the molded body extension are both planar.

Re claim 6, Nitori teaches the upper surface of the molded body extension is permanently affixed to the base of the molded body by adhesive.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghee Kang whose telephone number is 703-305-9147. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C Lee can be reached on 703-308-1690. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Donghee Kang
Examiner
Art Unit 2811

dhk